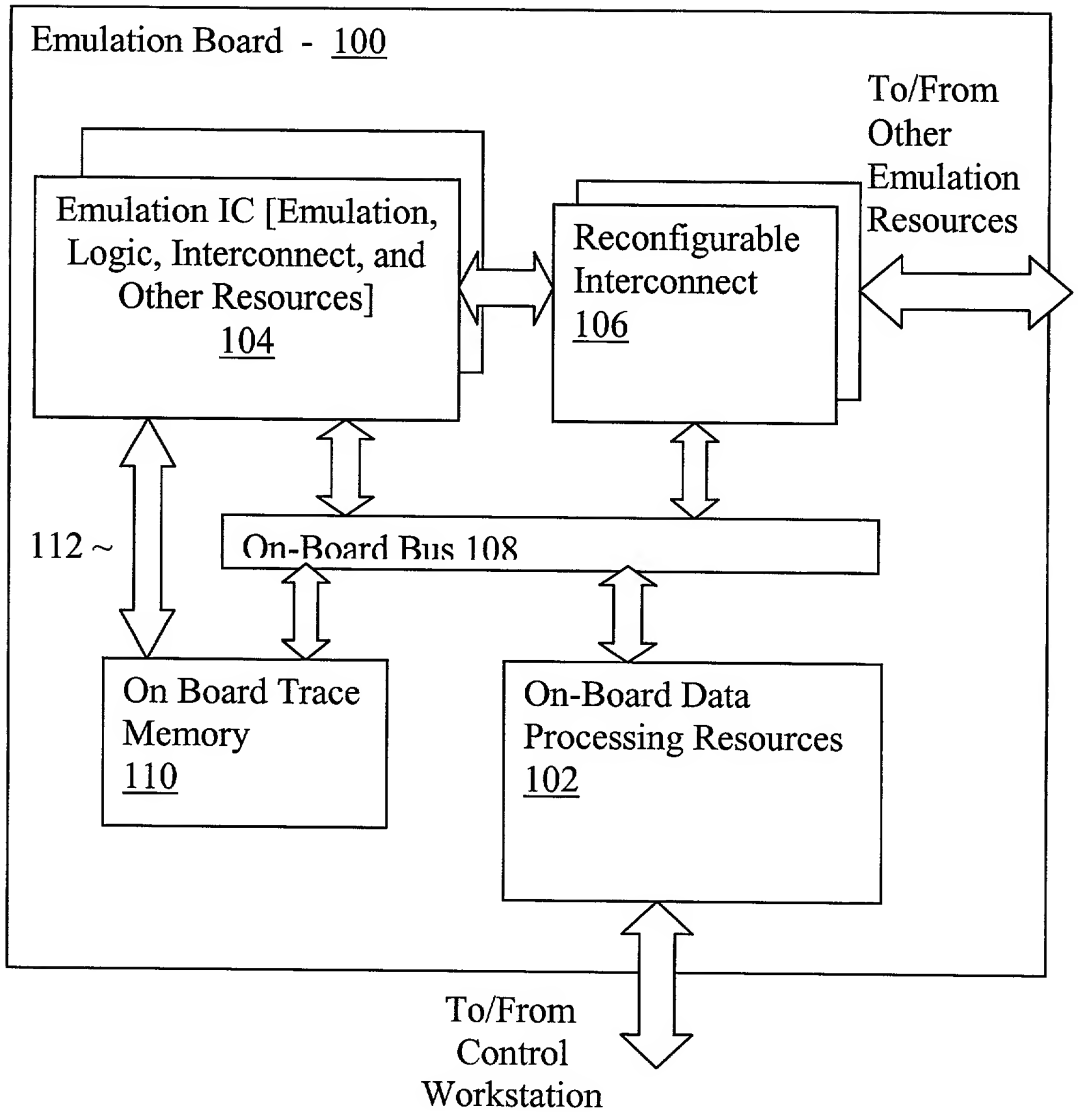
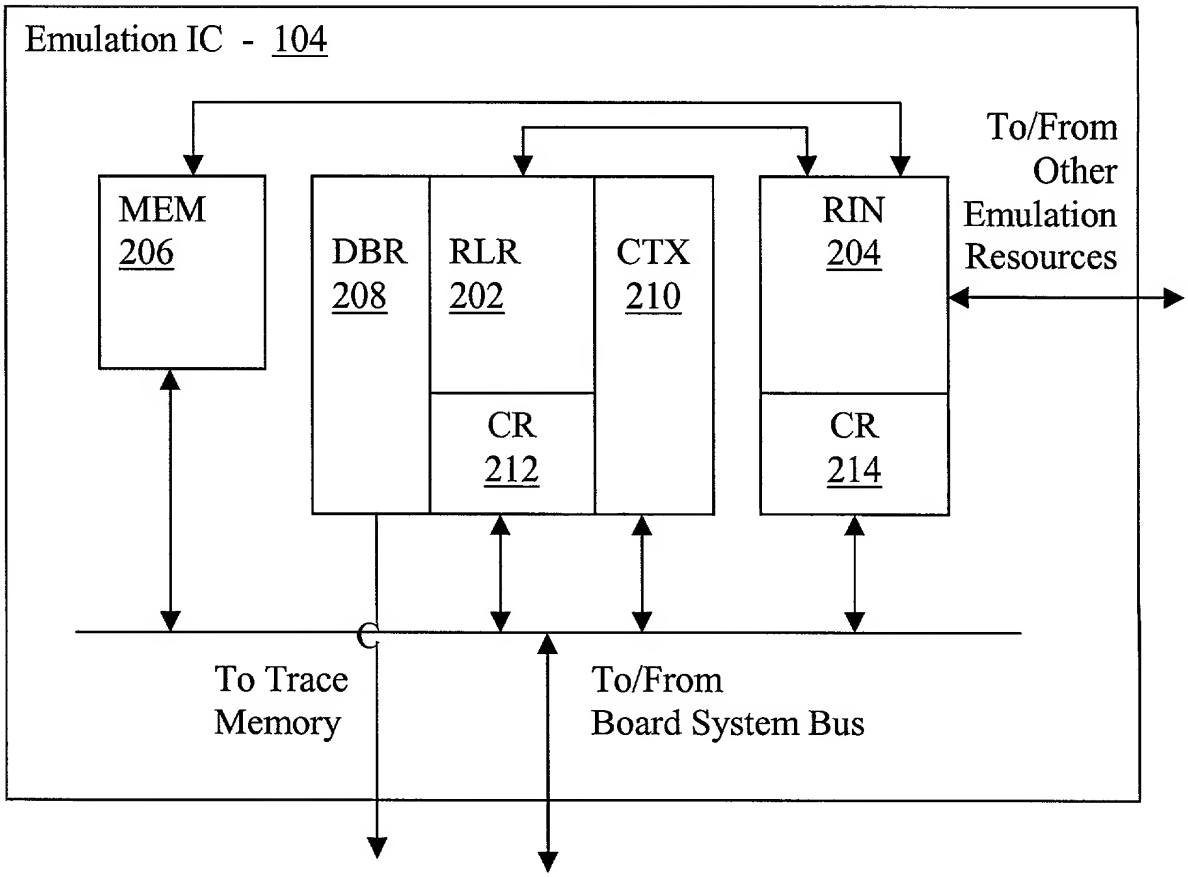

Emulation Board - 100
To/From Other Emulation Resources
Emulation IC [Emulation, Logic, Interconnect, and Other Resources] 104
Reconfigurable Interconnect 106
112 ~
On-Board Bus 108
On Board Trace Memory 110
On-Board Data Processing Resources 102
To/From Control Workstation

Figure 1



RLR = Reconfigurable Logic Resources
RIN = Reconfigurable Interconnect Network
MEM = Memory
DBR = Debugging Resources
CTX = Context (State) Elements
CR = Configuration Registers.

Figure 2a

Debugging Resources - 208

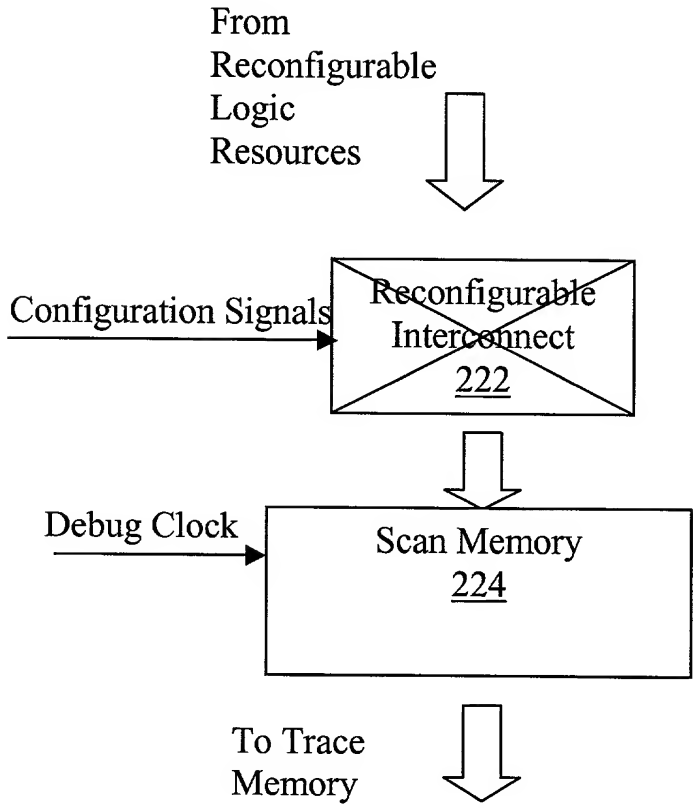


Figure 2b

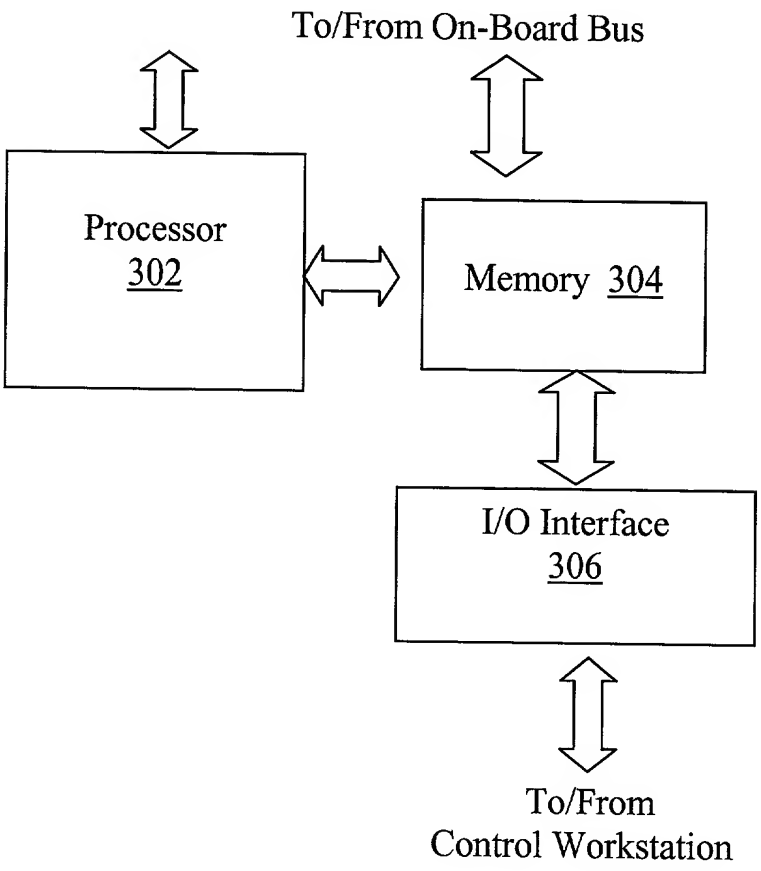

On-Board Data Processing Resources - 102
To/From On-Board Bus
Processor
302
Memory 304
I/O Interface
306
To/From
Control Workstation

Figure 3

Software - 400

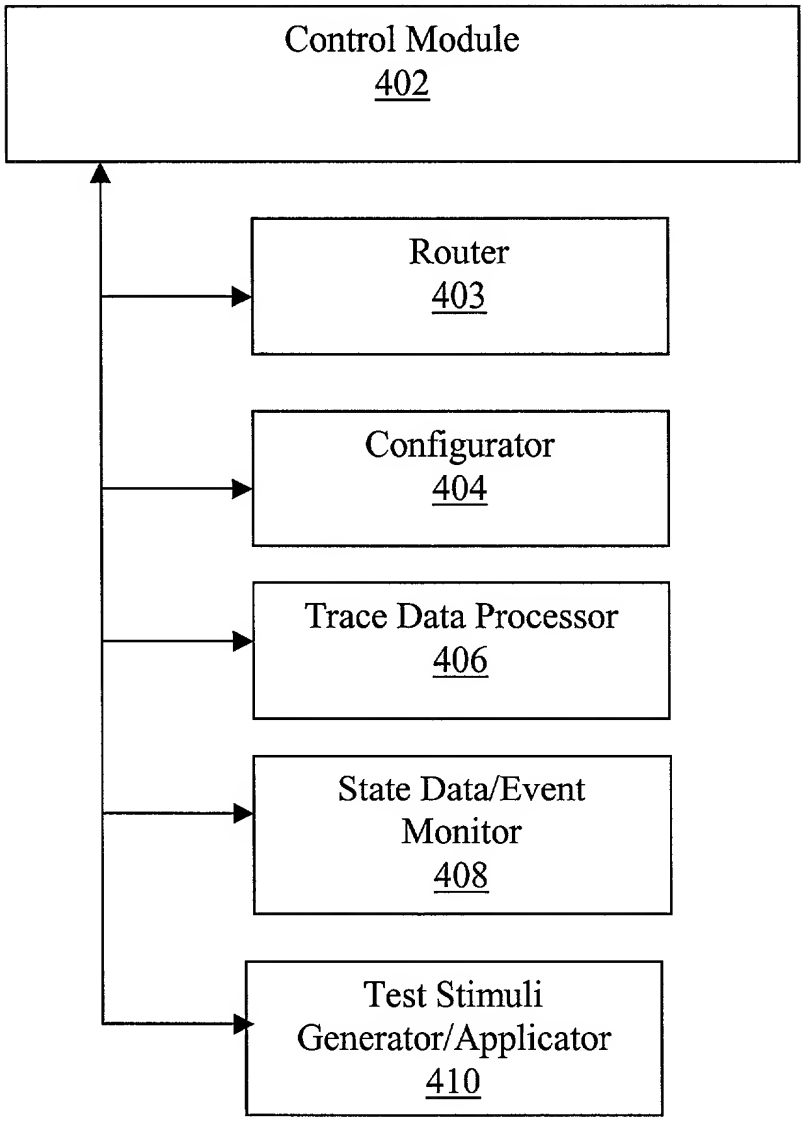


Figure 4

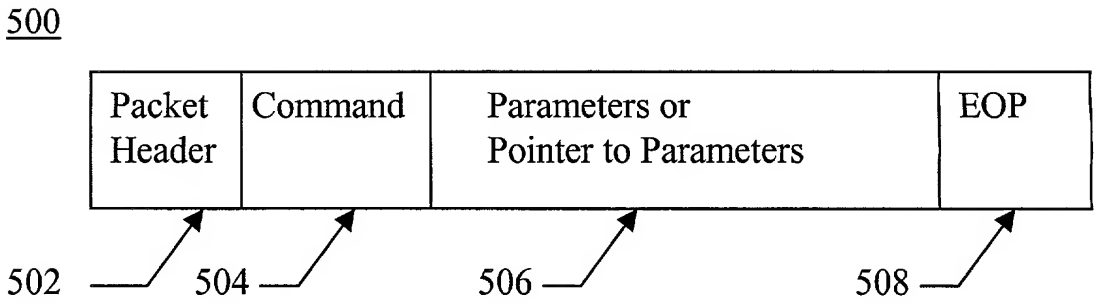


Figure 5

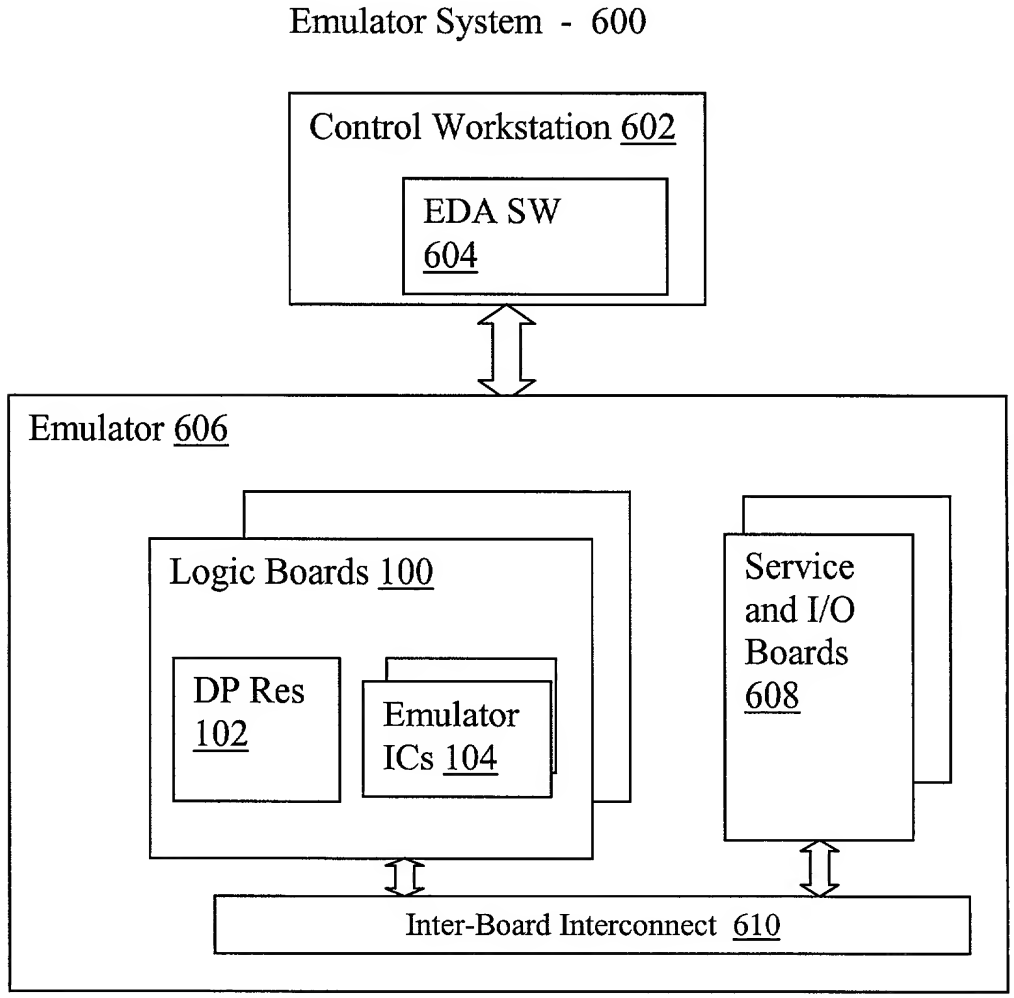


Figure 6

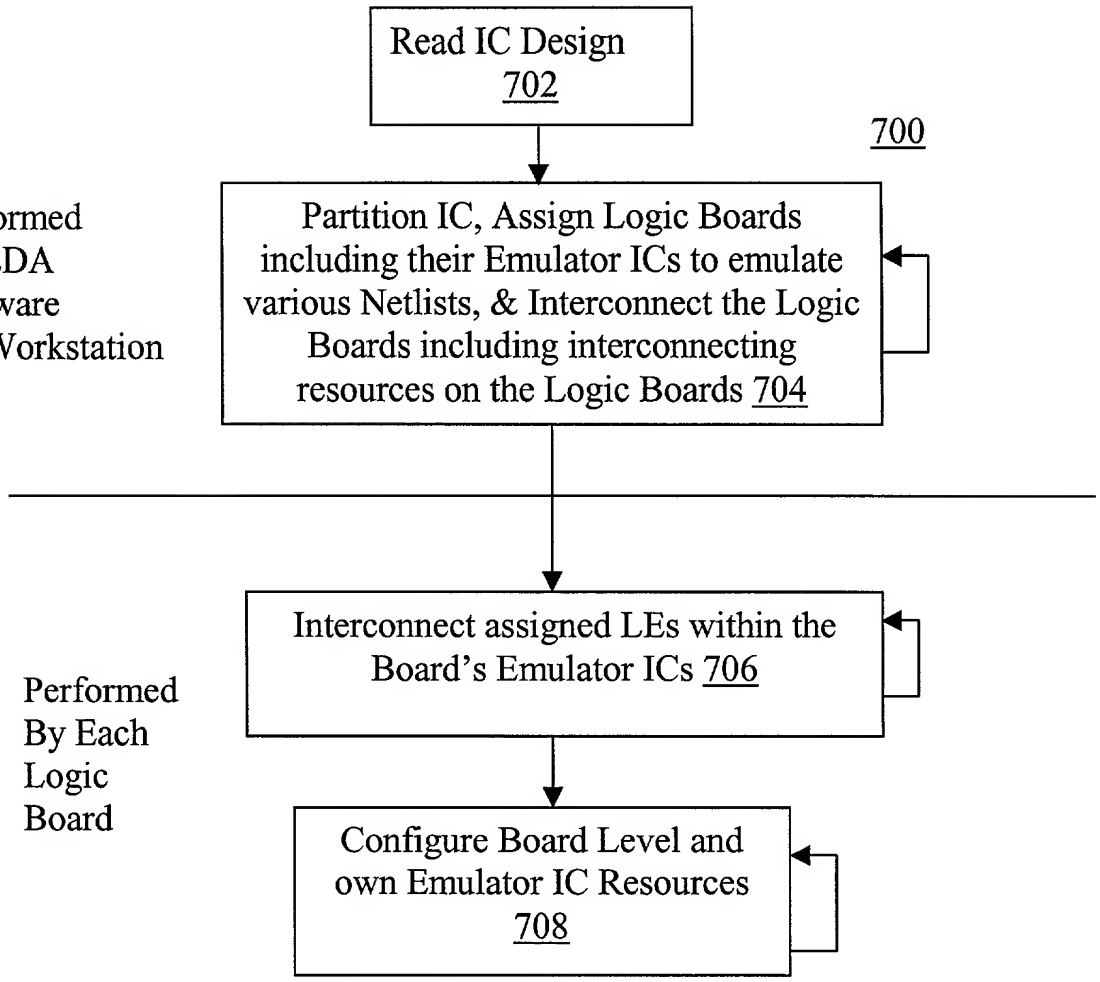

Read IC Design
702
700
Performed
By EDA
Software
On Workstation
Partition IC, Assign Logic Boards including their Emulator ICs to emulate various Netlists, & Interconnect the Logic Boards including interconnecting resources on the Logic Boards 704
Performed
By Each
Logic
Board
Interconnect assigned LEs within the Board's Emulator ICs 706
Configure Board Level and own Emulator IC Resources
708

Figure 7

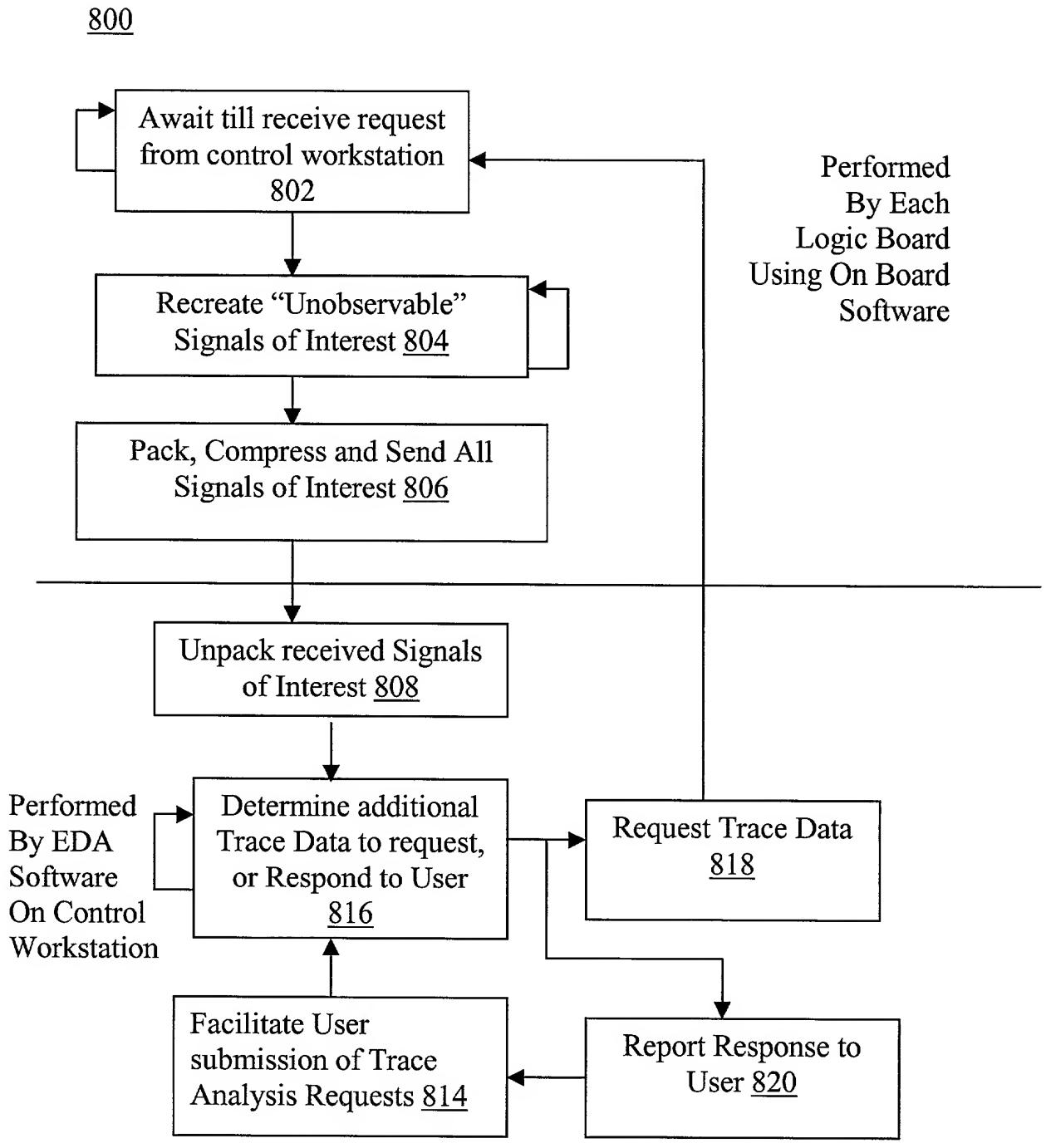

800
Await till receive request from control workstation 802
Recreate "Unobservable" Signals of Interest 804
Pack, Compress and Send All Signals of Interest 806
Performed By Each Logic Board Using On Board Software
Unpack received Signals of Interest 808
Performed By EDA Software On Control Workstation
Determine additional Trace Data to request, or Respond to User 816
Request Trace Data 818
Facilitate User submission of Trace Analysis Requests 814
Report Response to User 820

Figure 8

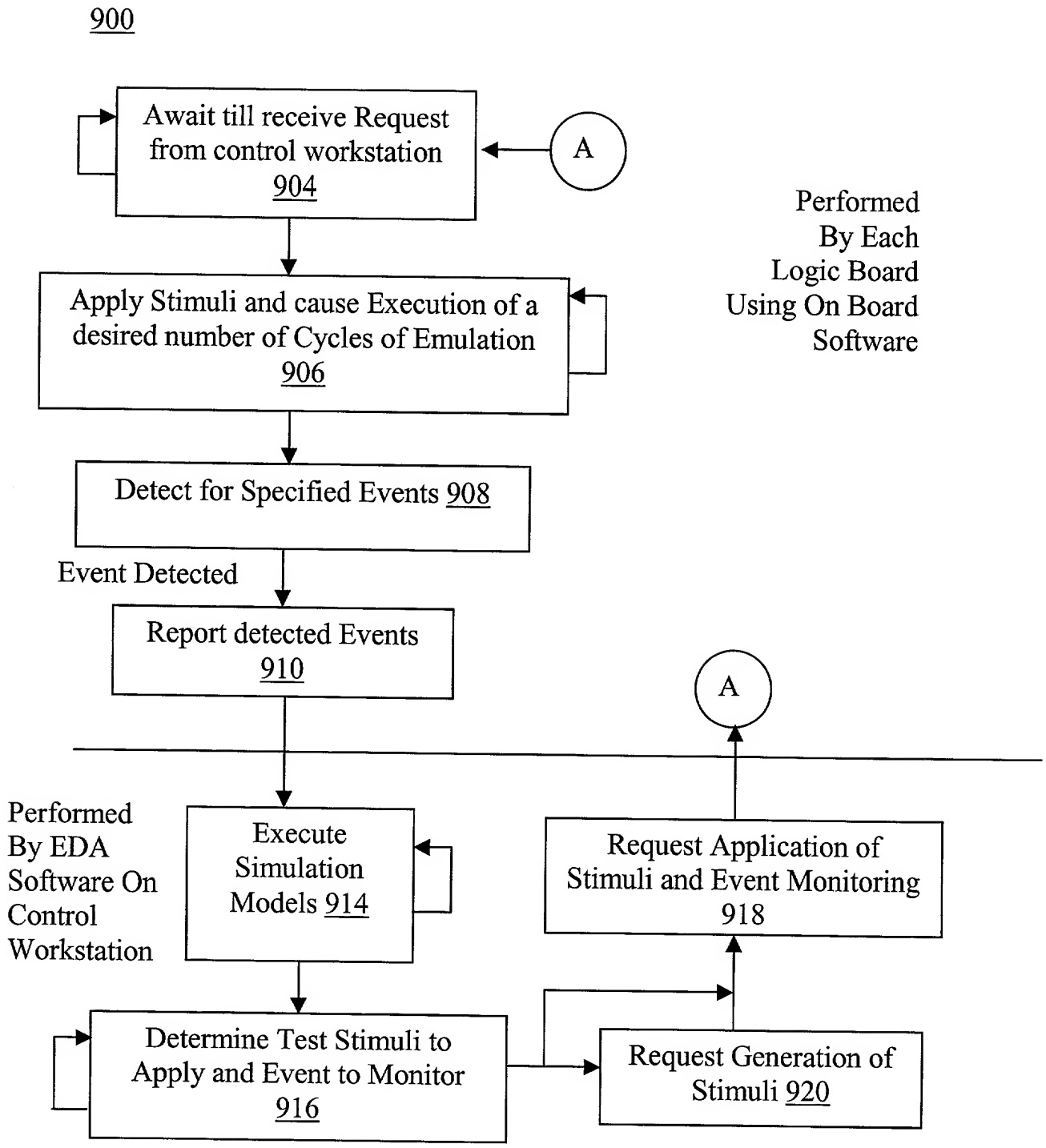
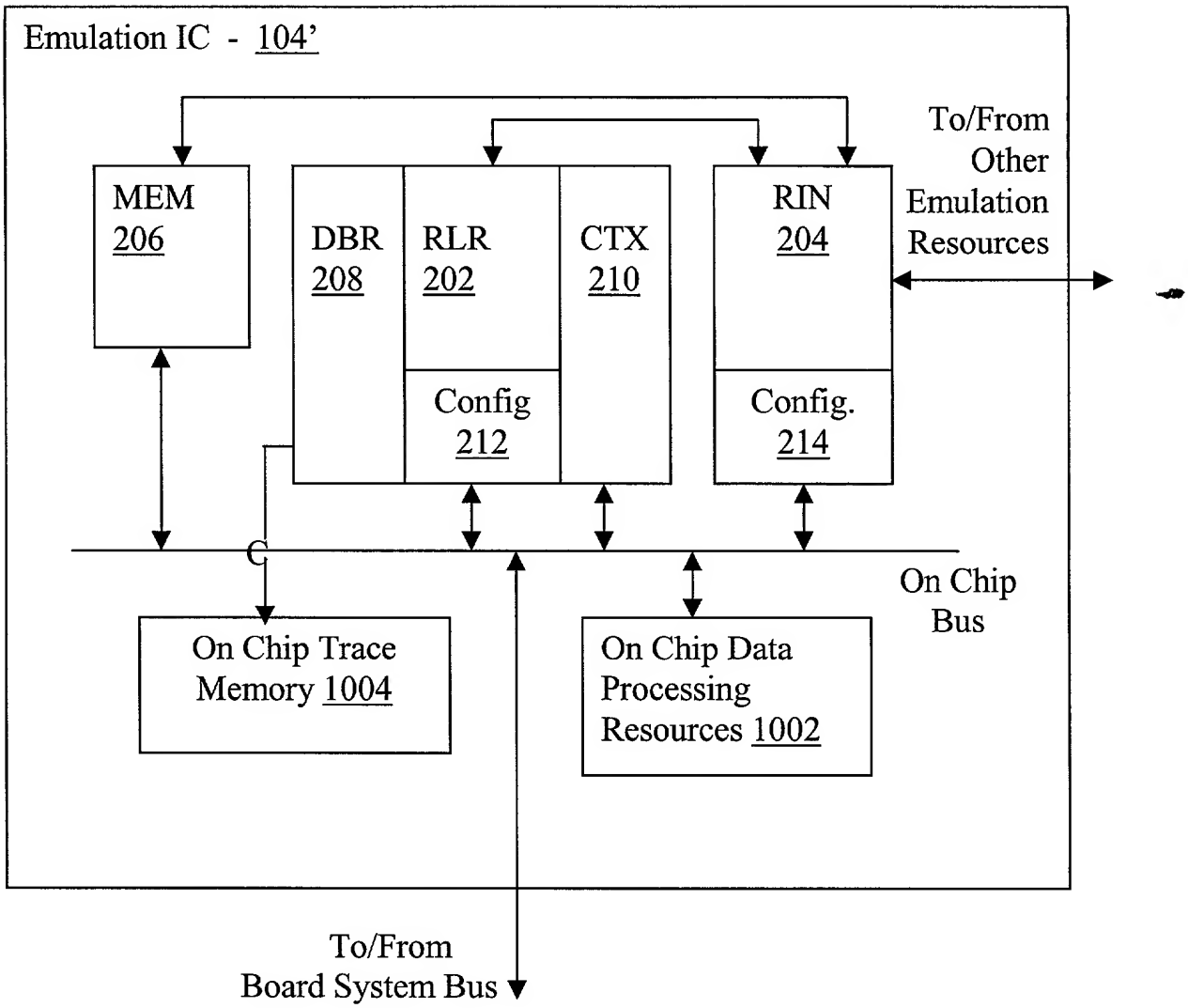

900
Await till receive Request from control workstation 904
A
Performed By Each Logic Board Using On Board Software
Apply Stimuli and cause Execution of a desired number of Cycles of Emulation 906
Detect for Specified Events 908
Event Detected
Report detected Events 910
A
Performed By EDA Software On Control Workstation
Execute Simulation Models 914
Request Application of Stimuli and Event Monitoring 918
Determine Test Stimuli to Apply and Event to Monitor 916
Request Generation of Stimuli 920

Figure 9



RLR = Reconfigurable Logic Resources
RIN = Reconfigurable Interconnect Network
MEM = Memory
DBR = Debugging Resources
CTX = Context (State) Elements
Config = Configuration registers.

Figure 10